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TITLE: Alternate polarity symmetric drive for scanning electrodes in a split-screen AC TFEL display device

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Brief Summary Text - BSTX (9):
The top and bottom halves of the screen are driven simultaneously, and in accordance with the invention, the rows are scanned in line-by-line fashion where a row in the top half of the panel is scanned with a first polarity voltage when, simultaneously, a row in the bottom half of the panel is scanned with an opposite polarity voltage. For example, all odd rows may be scanned with a negative voltage on a first frame, while all even rows are scanned with a positive voltage on the same frame. On the next frame the polarity may be reversed so that the odd rows are scanned with a positive voltage and the even rows are scanned with a negative voltage. Moreover, an odd row located in, for example, the top half of the panel may be scanned simultaneously with the scanning of an even numbered row located in the bottom half of the panel. This provides for the simultaneous scanning of bottom and top halves of the panel while using less energy than would be required for the same type of scanning using the drive scheme of U.S. Pat. No. 4,739,320 mentioned above. This is

because a positive power supply drives one electrode while a negative power supply drives the other. This **reduces the power** required because the demand is divided between **positive and negative** supplies, while the top and bottom scanning electrodes are energized simultaneously. This provides the advantages of split screen architecture and alternate line symmetric drive scanning while reducing the peak energy requirements for the scanning electrode power supplies.

Current US Cross Reference Classification - CCXR (2):
345/209

Current US Cross Reference Classification - CCXR (3):
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